

-JEZO I

CZECHOSLOVAKIA/Organic Chemistry - Naturally Occurring  
Substances and Their Synthetic Analogs.

G.

ABs Jour : Ref Zhur - Khimiya, No 9, 1958, 28934.

Author : Dubravkova, L., Jezo, I., Sefcovic, P., Voticky, Z.

Inst : -

Title : Some Esters of 1-N-Methylephedrine.

Orig Pub : Chem Zvesti, 11, No 5, 281-284 (1957) (in Slovak with  
summaries in German and Russian)

Abstract : A number of esters of 1-N-methylephedrine (I) with ali-  
phatic aromatic acids are described. The esters were  
prepared from I by a previously described method  
(Rzhikun , 1957, 71547). I is synthesized by the follo-  
wing series of reactions: 3.3 gms of L-ephedrine, 588  
gms of formalin (40 gms CH<sub>2</sub>O per 100 ml), and 390 gms  
of 85% HCOOH are refluxed for 5 hrs, and the product of  
the reaction is decomposed with 195 gms NaOH in 470 ml  
water; the yield of I is 286 gms, mp 85-86°.

Card 1/3

SEZ0, 1.

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14415.

Author : Dubravkova L., Jezo I., Sefcovic P., Voticky Z.

Inst :

Title : Some Esters of Basic Isopropanols.

Orig Pub: Chem. zvesti, 1957, 11, No 6, 351-357.

Abstract: Syntheses of  $RCH_2CH(CH_3)OCOAr$  (I), wherein R is the residue of an amine, by boiling for 3 hours 0.1 mole  $R'COCl$  in 100 ml  $C_6H_6$  and 0.2 mole  $RCH_2CH(CH_3)OH$  in 150 ml  $C_6H_6$  (the latter were prepared, with yields of 75-96%, from  $CH_3CHCH_2O$  and RH in autoclave, 5 hours, 170-190°). Listing the Ar, yield of I in %, BP in °C, MP of picrate and methyl iodide in °C: with R =  $(CH_3)_2N$ :  $C_6H_5$ , 87-89/1 mm, 181-182, 184-186; o- $CH_3OC_6H_4$  (Ar'), 125-126/1 mm, 165-166, 196-197; p- $CH_3OC_6H_4$  (Ar<sup>2</sup>), 115-117/0.5 mm, 200-201, 169-170; 3,4- $(CH_3O)_2C_6H_2$  (Ar<sup>3</sup>), 159-160/1.5 mm, 203-204, 200-202; 3,4,5- $(CH_3O)_3C_6H_2$  (Ar<sup>4</sup>), 148-149/0.5 mm, 194-195,

Card : 1/2

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14415.

205-206; with R = (C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>N: C<sub>6</sub>H<sub>5</sub>, 113-115/0.2 mm, 102-103, 149-150; Ar<sup>1</sup>, 133-134/0.15 mm, 98-99, 118-119; Ar<sup>2</sup>, 142-144/0.15 mm, 126-127, Ar<sup>3</sup>, 161-163/0.2 mm, 158-159, 182-183; Ar<sup>4</sup>, 163-165/0.2 mm, 159-160, 185-186; with R = N-piperidyl: C<sub>6</sub>H<sub>5</sub>, 109-110/0.1 mm, 139-140, 128-129; Ar<sup>1</sup>, 156-157/0.2 mm, 147-148, 133-134; Ar<sup>2</sup>, 164-166/0.2 mm, 169-170, 191-192; Ar<sup>3</sup>, 172-174/0.2 mm, 224-225, 195-196; Ar<sup>4</sup>, 176-178/0.2 mm, 179-180, 199-200; with R = N-morpholyl: C<sub>6</sub>H<sub>5</sub>, 123-124/0.1 mm, 202-203, 140-141; Ar<sup>1</sup>, 160-161/0.15 mm, 171-172, 150-151; Ar<sup>2</sup>, 178-180/0.15 mm, 185-186, 193-195; Ar<sup>3</sup>, 191-193/0.25 mm, 227-228, 195-196; Ar<sup>4</sup>, 203-205/0.2 mm, 209-210, 208-209.

Card : 2/2

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

Author : Dubrakova, L.; Jezo, I.; Sefcovic, P.; Voticky, Z.  
Inst : Not given  
Title : Abnormal Course of Reaction of Bischler-Napieralsky.

Orig Pub: Chem zvesti, 1957, 11, No 9, 536-541.

Abstract: In the study of the method of synthesis of the isoquinoline analogue of podophyllotoxin, 1-(3,4,5-trimethoxyphenyl)-3-carbethoxy-6,7-methylenedioxy-3,4-dihydroisoquinoline (I) was obtained, and it was found on that occasion that no cyclohydration of the ethyl ester of  $\alpha$ -(3,4,5-trimethoxy-benzamido)- $\beta$ -(3,4-methylenedioxyphenyl)-propionic acid (II) is caused by the action of  $P_2O_5$ ; 4-piperonylidene-2-(3,4,5-trimethoxyphenyl)-oxazolone (III) is obtained with  $PCl_5$ , and I is only partially produced

Card 1/4

G-15

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

Abstract: with  $\text{POCl}_3$ , but 5-ethoxy-4-piperonyl-2,3,4,5-trimethoxyphenyl)-oxazole (IV) is formed as the main product. Solution of 200 g of III in 300 g of 10% NaOH with water added to bring up the total volume to 1.6 liter is boiled for 6 hours, cooled, and, after the acidification of the solution,  $\alpha$ -3,4,5-trimethoxybenzamido- $\beta$ -(3,4-methylenedioxyphenyl)-acrylic acid (V) precipitates, yield 91%, melt. p. 228-229° (from alc.). 1.5 kg of 4% Na amalgam is added to the solution of 133 g of V in 1.5 liter of water with 30 g of NaOH maintaining the basic reaction, the mixture is filtered and acidified, and  $\alpha$ -3,4,5-trimethoxybenzamido- $\beta$ -(3,4-methylenedioxyphenyl)-propionic acid (VI) precipitates; yield 85%, melt. p. 193-194° (from alc.). 45 g of VI, 500 ml of abs. alcohol and 10

Card 2/4

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

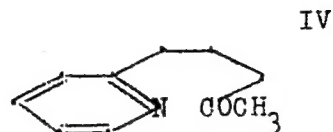
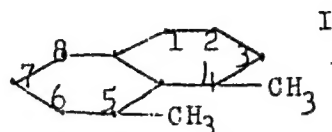
Abstract: the solution of 6 g of II in 150 ml of  $\text{CHCl}_3$  (temperature below  $40^\circ$ ) and allowed to stand at  $20^\circ$  for 5 days,  $\text{POCl}_3$  and  $\text{CHCl}_3$  are distilled off in vacuo, the residue is treated with water, and III is obtained, yield 72%, melt. p.  $198-200^\circ$  (from  $\text{CH}_3\text{COOH}$ ). -- P. Sokov

Card 4/4

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances and G  
Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61103.

Abstract:



60%, boiling point 142 to 146°/0.25 mm. The alkaline product of III saponification and decarboxylation (6 hours of boiling with concentrated HCl) is extracted with ether and 1-[6'-methylpyridyl-(2')]-pentanone-4 (IV) is obtained, yield 90%, boiling point 92 to 94°/10 mm; semiplatinate - dissociation point 185 to 186°. I is prepared

Card 2/3

65

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances G  
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61103.

Abstract: by the hydrogenation of 0.06 mole of IV in 120 ml of absolute alcohol (4 g of Raney's catalyst, 150 atm, 200 to 220°) with the evaporation of the acidified filtrate until dry and extraction of the alkaline residue with ether, yield 61%, boiling point 53 to 55°/8 mm; semichloroplatinate - dissociation point 185 to 186°, picrate - melting point 156 to 158°. See report X in RZhKhim, 1958, 28943.

Card 3/3

Sezo, 1.

CZECHOSLOVAKIA / Organic Chemistry: Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61104.

Abstract: tracted with ether, and 2-(3'-oxy-1'-methoxymethylpropyl)-pyrrolidine (V) is obtained, yield 78%, boiling point 153 to 157°/9 mm,  $n_D^{22} = 1.4816$ . If water-cooled V is poured into glacial  $\text{CH}_3\text{COOH}$  saturated with HBr gas, the OH group will be substituted with Br with a simultaneous breaking of the ester bond and formation of 2-(3'-bromo-1'-oxymethylpropyl)-pyrrolidine; at the heating of the later (having distilled off  $\text{CH}_3\text{COOH}$ ) with 10 g of NaOH in 50 ml of water (100°, 2 hours), HBr splits off with the formation of I; the yield of I from the  $\text{CHCl}_3$  extract is 90%, boiling point - 141 to 144°/9 mm,  $n_D^{22} = 1.4975$ ; picrate - melting point 190 to 191° (from alcohol); a little amount of picrate, melting point 173 to 174°, was separa-

Card 3/4

67



CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3  
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77820.

Author : Dubravkova, L., Jezo, I., Sevcovic, P., and  
Voticky, Z.

Inst : ~~Not given~~ - SLOVENSKA AKADEMIE VIED, PRATA, CZECHOSLOVAKIA.

Title : Esters of N,N-Disubstituted Aminoethanol.

Orig Pub: Chem Zvesti, 12, No 4, 252-255 (1953) (in Slovak  
with summaries in German and Russian).

Abstract: In the course of the investigation of compounds  
containing the N-C-C-OH group, some of which have  
a hypotensive action, the authors have synthesized  
compounds having the general formula  $RCOOCH_2CH_2$   
 $N(CH_3)(CH_2)_5N(CH_3)_2$ , where R = 3,4,5-trimethoxy-  
phenyl (I), and 4-pyridyl (II). Compounds of

Card 1/5

CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3  
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77820.

Abstract: ing water bath and then for 8 hrs at 120°; the mixture is diluted with 200 ml water, made weakly alkaline with 50% KOH, and the product is salted out with solid K<sub>2</sub>CO<sub>3</sub> and extracted with CHCl<sub>3</sub>; HOCH<sub>2</sub>CH<sub>2</sub>N(CH<sub>3</sub>)(CH<sub>2</sub>)<sub>4</sub>CN is obtained, yield 51%, bp 159-161°/11mm. 60 gms of the latter substance are dissolved in 440 ml abs alc saturated at 0° with NH<sub>3</sub> gas and the solution is hydrogenated over Raney Ni at 150° and at an initial pressure of 130 atm, giving HOCH<sub>2</sub>CH<sub>2</sub>N(CH<sub>3</sub>)(CH<sub>2</sub>)<sub>5</sub>NH<sub>2</sub> (IV), yield 86%, bp 139-140°/11mm, n<sub>D</sub><sup>22</sup> 1.4735. 35 gms IV are added with cooling to 165.8 gms of 90% HCOH followed by the addition of 61 gms of 35% HCHO. The mixture is heated for 10 hrs [temp?], 55 ml

Card 3/5

41

JE 20

COUNTRY : Czechoslovakia  
 CATEGORY :  
 Abs. Jour. : AZKhim., No. 20 1959, No. 71/89  
 AUTHOR : Jeno I.; Tihlarik K.  
 INSTIT. : Not given  
 TITLE : High Temperature Reaction of Allyl Alcohol with Ammonia  
 ORIG. PUB. : Chem. Zvesti, 1958, 12, #9, 558-569.

ABSTRACT : The effect of temperature, catalyst, ratio and the feed rate of reactants on the yield of pyridine bases resulting from the reaction of allyl alcohol (I) with  $NH_3$  was studied. At optimum conditions, that is when reaction was conducted in a copper tube over  $Pd/Al_2O_3$  at  $310^\circ$ , using a 1:3 ratio of I: $NH_3$  and a feed rate of 20.5 g/hr of (I) (30 grams of catalyst), 36.19% of pyridine bases were obtained. The latter consisted of 59.7%  $\beta$ -picoline, 15.8% 3,5-dimethylpyridine, 7.32% 3,5-dimethyl-4-ethyl-pyridine and 17.1% of tars (nondistillable substances). The yield of distillates was decreased to 7.9%, when the same catalyst was used for 30 hours.

CARD:

1/1

21

— D. Vitkovskiy

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620011-5"

COUNTRY : Czechoslovakia  
 CATEGORY : Organic Chemistry. Natural Compounds and Their Synthetic Analogs.  
 Abs. Jour. : Ref Zhur-Khimiya, No.12, 1959, No. 42535  
 Author : Dubravkova, I., Ježo, I., Šefčović, P., \*  
 Institut. : Not given  
 Title : The Synthesis of Some Alkaloid Derivatives. XIV

Orig. Pub. : Chem. zvesti, 1958, 12, No.8, 459-463

Abstract : A synthesis of a lycotonine (1-oxymethyl-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline is described. The acylation of homoveratrine amine (I) by benzyloxycetic acid (II) in decalin (with the elimination of the formed water by way of an azeotropic mixture with the solvent) gave N-benzyloxycetyl derivative of I with a 91% yield, m.p.  $68-69^\circ$  (from water);

\* Votický, Z.

Card:

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Country : Czechoslovakia  
 Category : Organic Chemistry. Natural Compounds and  
 Their Synthetic Analogs.  
 Abs. Jour. : Ref Zhur-Khimiya, No.12, 1968, No.48635  
 Author :  
 Institut. :  
 Title :  
 Orig Pub. :  
 Abstract : 32-33° (from petroleum ether). The hydro-  
 chloride, m.p. 208-209° (from alcohol-ether);  
 the chloroplatinate, m.p. 191-193° (decompo-  
 sition; from water). Quantitative hydrolysis  
 by boiling dilute HCl 1 : 1 yielded (+)-caly-  
 cotomine, m.p. 135-136°; other derivatives  
 made were: hydrochloride, m.p. 192° (from  
 methanol-ether solution); the perchlorate,  
 m.p. 174° (from water); the picrate, m.p.  
 162-163° (from alcohol); the chloroplatinate,  
 m.p. 191-193° (from water).  
 Card: 3/5  
 Total: 4/5

JEZO, I.; ~~XXXXXXXXXX~~.

TECHNOLOGY

Periodical CHEMICKE ZVESTI. Vol. 12, no. 9, Sept. 1958.

JEZO, I.; TIHLARIK, K. Reaction of allyl alcohol with ammonia under higher temperatures.  
p. 558.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

FE20, I

Distr: 4E2c(J)/4E3d

The reaction of allyl alcohol with ammonia at higher temperatures. J. Jeda and K. Tihlárík (Chem. ústav, Slovenská akad. vied, Bratislava, Czech.). Chem. zvesti 12, 558-60 (1958) (German summary).—The reaction of allyl alc. (I) with gaseous  $\text{NH}_3$  (II) at higher temps. by applying a catalyst of an oxide-carrier, salt, and metal-carrier type was studied. The relation of yield of pyridine bases on incoming speed of I, the mol. ratio of I and II, reaction temp., the type and aging of catalyst was detd. At  $310^\circ$  with the incoming speed of 120.5 g. per hr. on 50 g.  $\text{Pd-Al}_2\text{O}_3$  catalyst in an iron tube, 38.19% basic portion (III) was produced. III was composed of 59.70%  $\beta$ -picoline, 16.81% 3,5-dimethylpyridine, 7.33% 3,5-dimethyl-4-ethylpyridine and 17.10% undistd. residue. The best results were obtained in a copper tube with the incoming speed of 120.5 g. per hr. on 50 g.  $\text{Pd-Al}_2\text{O}_3$  catalyst with a 1:3 molar ratio of I to II.

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JEZO, I.

Reaction of diacetone alcohol with ammonia at higher temperatures. I. Igy and K. Tihlarik (Slovenska akad. vied, chem. ustav, Bratislava, Czech.). Chem. zvesti 13, 98-102 (1960) (German summary). — By reaction of diacetone alc. with  $\text{NH}_3$  gas at  $310^\circ$  with Pd-C catalyst were prepd. 16.4% 2,4,6-trimethylpyridine, 7b, 187-70°,  $n_D^{20}$  1.4910 (picrate m.  $153^\circ$  (EtOH); 0.5H<sub>2</sub>PtCl<sub>6</sub> salt m. 221-2° (decompn.) (EtOH); H<sub>2</sub>AuCl<sub>4</sub> salt m. 111-12° (EtOH); H<sub>2</sub>Co<sub>2</sub>HgCl<sub>6</sub> salt m. 150° (EtOH); picrolonate m. 227° (decompn.) (EtOAc)), and 3% 3-iso-Pr deriv., b<sub>2</sub> 82-3°, m. 54-60° (Et<sub>2</sub>O) (picrate m. 194° (decompn.) (EtOH); 0.5H<sub>2</sub>PtCl<sub>6</sub>·H<sub>2</sub>O salt m. 216-18° (decompn.) (50% EtOH); 0.5H<sub>2</sub>PtCl<sub>6</sub> salt m. 231° (decompn.) (EtOH); picrolonate m. 253-4° (decompn.) (EtOH)). Jan Micks

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29

COUNTRY : CZECHOSLOVAKIA  
 SUBJECT : Organic Chemistry. Natural Substances and  
 Their Synthetic Analogs  
 RES. JOUR. : RZKhim., No. 1 1960, No. 1362  
 AUTHOR : Baber, K.; Jozo, I.; Kalac, V.; Karvas, M.  
 TEST. : -  
 TITLE : Synthesis of Some Alkaloid Derivatives. XVI.

INFO. PUB. : Chem. zvesti, 1959, 13, No 3, 163-169

ABSTRACT : The synthesis of 1-methylpyrrolisidine deriva-  
 tives was carried out, during which the stage  
 of ring closure was effected under conditions  
 approximating physiological ones. The realiza-  
 tion of the synthesis appeared to verify Schöpf's  
 hypothesis (Schöpf, C., Angew. Chemie, 1949, 61,  
 32) regarding the biogenesis of alkaloids from  
 substances of the general formula  $\text{CHO}(\text{CH}_2)_x\text{NH}-$   
 $(\text{CH}_2)_x\text{CHO}$ ; the correctness of this hypothesis

CARD: 1/6

G-45



COUNTRY :  
CATEGORY :

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ABS. JOUR. : RZhKhim., No. 1 1960, No. 1362

AUTHOR :  
TITL. :  
FILE :

ORIG. PUB. :

ABSTRACT : pH > 5, II does not cyclize, and at pH < 4 the  
polymerization products of II are formed. The  
initial Cl(CH<sub>2</sub>)<sub>3</sub>CHO, b.p. 52-54°/12 mm, was  
synthesized by oxidation of Cl(CH<sub>2</sub>)<sub>3</sub>OH with  
CrO<sub>3</sub> in CH<sub>3</sub>COOH. The mixture of 0.05 mole of  
Ia, 0.5 mole of Ib, 0.05 mole of KI and 0.1  
mole of potash in 150 ml of abs. alcohol is  
boiled for 20 hours, diluted with water, and

CARD:

2/6

G-h6

*Jezov, Ivan*

Full Name

Birth Date and Place

Education

Employment

Address Bratislava, Československá, No 7, Júl 60, p. 513

Education Engineering Ph D; Candidate of Chemical Sciences  
Affiliations Department of Chemistry of Natural Substances at  
 the Chemical Institute of the Slovak Academy of  
 Sciences in Bratislava.  
Notes Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-  
 isochinoline with Hydrazine Hydroxide," Source.

Education Milan

Affiliations Engineer

Department of Chemistry of Natural Substances at the  
 Chemical Institute of the Slovak Academy of  
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Notes Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-  
 isochinoline with Hydrazine Hydroxide," Source.

Education Marcel

Affiliations Engineering Candidate of Chemical Sciences

Department of Chemistry of Natural Substances at  
 the Chemical Institute of the Slovak Academy of  
 Sciences in Bratislava.

Notes Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-  
 isochinoline with Hydrazine Hydroxide," source.

*Bel*

BABOR, Karel, inz., C.Sc.; JEZO, Ivan, dr., inz., C.Sc.; KALAC, Vladimir, inz., C.Sc.; KARVAS, Milan, inz.; TIHLARIK, Karel, inz.

Synthesis of certain alkaloid derivatives. Part 20. Chem zvesti 15 no.10: 721-724 0 '61.

1. Oddelenie chemie prirodnych latek Chemickeho ustavu Slovenskej akademie vied, Bratislava. Authors' address: Bratislava, Mlynske nivy 37, Chemicky ustav Slovenskej akademie vied.

JEZO, Ivan, dr., inz., C.Sc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt.2. Chem zvesti 17 no.4:255-264 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej akademie  
vied, Oddelenie chemie sacharidov, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr., inz., C.Sc.

Aminolysis of saccharose. Part 1. Chem zvesti 17 no.2:  
126-139 '63.

1. Chemicky ustav Slovenskej akademie vied, Oddelenie chemie  
sacharidov, Bratislava, Mlynske nivy 37.

BILIK, Vojtech, promovany chemik; JEZO, Ivan, dr. inz., CSc.

Some trimethylsilyl derivatives of saccharides. Chem zvesti  
17 no.12:861-864 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej  
akademie vied, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr. inz., CSc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt. 3. Chem zvesti 17 no.12:  
865-883 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej  
akademie vied, Bratislava, Mlynske nivy 37.

L 1631-66

ACCESSION NR: AP5024266

CZ/0041/64/000/009/0638/0671

AUTHOR: Bilik, V. (Graduate chemist); Jero, I. (Jezho, Y.) (Doctor, Engineer, Candidate of sciences) (Bratislava); Stankovic, L. (Stankovich, L.) (Graduate chemist) (Bratislava)

TITLE: Determination of silicon in O-(Trimethylsilyl)-derivatives of saccharides

SOURCE: Chemické zvesti, no. 9, 1964, 688-691

TOPIC TAGS: silicon, analytic chemistry, hydrolysis, organic silicon compound, carbohydrate

Abstract [Authors' German summary, modified]: Described is a method of determining silicon in some derivatives of O-(trimethylsilyl)saccharides, O-(trimethylsilyl)polysaccharides, N-(trimethylsilyl)-amines, and trimethylsilyl esters of organic acids. The method is based on a hydrolytic decomposition of substances. Hydrolysis products (trimethylsilanol and hexamethylsiloxane) are brought by an oxygen flow to a combustion tube where they are quantitatively burned to silicon dioxide.

Card 1/2



L 1631-66

ACCESSION NR: AP5024266

<sup>44</sup>  
"We thank A. Sedlak for the determination of some physico-chemical constants of studied compounds." Orig. art. has: 1 figure, 1 table. 7

ASSOCIATION: Chemický ústav Slovenskej akadémie vied, Oddelenie chémie monosacharidov, Bratislava (Department of the Monosaccharides Chemistry, Slovak Academy of Sciences) <sup>44</sup>

SUBMITTED: 28 Sep 63

ENCL: 00

SUB CODE: 00, 00

NR REF SOV: 001

OTHER: 006

JPRS

<sup>Ka</sup>  
Card 2/2

L 1606-66

ACCESSION NR: AP5024490

CZ/0043/64/000/011/0837/0851

AUTHOR: Jezo, I. (Yezho, Y.) (Doctor, Engineer, Candidate of sciences) (Bratislava);  
Luzak, I. (Luzhak, Y.) (Engineer) (Bratislava)

TITLE: Aminolysis of sucrose (V). Reaction of sucrose with aqueous solution of ethanolamine

SOURCE: Chemicke zvesti, no. 11, 1964, 837-851

TOPIC TAGS: carbohydrate, aqueous solution, ethanol, amine, reaction mechanism

ABSTRACT: Aminolysis of sucrose by water solutions of ethanol-amine was conducted at elevated temperatures. In the reaction mixture the following were identified and isolated: ethylene-diamine, 1-ethyl piperazine, 1-(2-hydroxyethyl)-2-methyl-1,4,5,6-tetrahydropyrazine, 2-methyl-4-(2-hydroxyethyl)-1,4,5,6-tetrahydropyrazine, 1-(2-hydroxyethyl)-2-methyl-2-imidazoline, 1,4-bis(2-hydroxyethyl)-2-methyl-1,4-dihydropyrazine, and a substance with an empirical formula  $C_{11}H_{21}N_3O_2$ . The formation of these

Card 1/2

L 1606-66

ACCESSION NR: AP5024490

substances is explained by a suggested reaction mechanism that applies at elevated temperatures. "We thank A. Puffler and O. Rau for the elementary analyses; R. Justh for the measurement of infrared spectra; A. Sedlak for determination of some physico-chemical constants of the examined materials. Z. Matika participated in the experimental work." Orig. art. has: 5 formulas, 4 graphs, 3 tables.

ASSOCIATION: Chemický ústav Slovenskej akadémie vied, Oddelenie chémie monosacharidov, Bratislava (Department of Chemistry of Monosaccharides, Institute of Chemistry, Slovak Academy of Sciences)

SUBMITTED: 15Jun64

ENCL: 00

SUB CODE: OC, GC

NR REF SOV: 000

OTHER: 013

JPRS

Card 2/2

JEZO, I.

Professor Eng. Mikulas Furdik at sixty. Chem listy 59 no.5:  
638-639 My '65.

BILIK, Vojtech, prcm. chemik; BAUER, Stefan, dr. inz., C.Sc.; JEZO, Ivan, dr. inz., C.Sc.; FURDIK, Mikulas, prof. inz.

Separation of O-trimethyl derivatives of monosaccharides by gas-liquid chromatography. Chem zvesti 19 no.1:28-33 '65.

1. Chair of Organic Chemistry and Biochemistry of the Faculty of Natural Sciences of Komensky University, Bratislava, Smeralova
2. 2. Editorial Board Member, "Chemicke zvesti" (for Furdik).

L 7711-66 EWA(j)/EWP(j)/EWA(h)-2 RM  
ACC NR: AP6000910

SOURCE CODE: CZ/0043/65/000/001/0028/0033

AUTHOR: Bilik, Vojtech (Graduate chemist); Bauer, Stefan--Bauer, Sh. (Engineer; Candidate of sciences); Jeko, Ivan--Jezho, I. (Doctor; Engineer; Candidate of sciences); Furdik, Mikulas (Engineer; Professor)

ORG: Department of Biochemistry of Saccharides, Chemical Institute, Slovak Academy of Sciences, Bratislava (Chemicky ustav Slovenskej akademie vied, Oddelenie monosacharidov); Department of Organic Chemistry and Biochemistry, Faculty of Natural Sciences, Comenius University, Bratislava (Katedra organickej chemie a biochemie Prirodovedeckej fakulty Univerzity Komenskeho)

TITLE: Separation of O-trimethyl-silyl derivatives and O-methyl derivatives of monosaccharides by gas-liquid chromatography

SOURCE: Chemické zvesti, no. 1, 1965, 28-33

TOPIC TAGS: carbohydrate, biochemistry, gas chromatography, chemical separation, organosilicon compound

ABSTRACT: The authors describe separation of O-trimethyl silyl derivatives from O-methyl derivatives of monosaccharides by means of gas chromatography. The anchored phase used was a polyester of 1,4-butane diol succinate. They found that elution periods of methyl analogues of trimethyl silyl ethers were a function of the anchored phase and its carrier (silica). Eng. A. Kardosova and P. Suchiansky collaborated in the work in the division of gas chromatography. Orig. art. has: 4 graphs, 1 table. [JPAS]  
Card 1/2

L 7711-66

ACC NR: AP6000910

SUB CODE: 06, 07 / SUBM DATE: 20Jul64 / OTH REF: 008

Card <sup>m</sup> 2/2

L 31396-66

ACC NR: AP6021114

SOURCE CODE: CZ/C043/65/000/012/0006/0907

AUTHOR: Jozso, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences; Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava)

ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute, SAV, Bratislava (Oddelenie chemie monosaccharidov a oligosaccharidov Chemickeho ustavu Slovenskej akademie vied)

TITLE: Aminolysis of sucrose (VI). Reaction of sucrose with water solutions of beta-aminopropionitrile at elevated temperatures

SOURCE: Chemicke zvesti, no. 12, 1965, 900-907

TOPIC TAGS: chemical reaction, amine, organic nitrile compound, carbohydrate

ABSTRACT: During the reaction of sucrose with beta-aminopropionitrile in water solution at elevated temperatures a mixture of heterocyclic compounds is formed; the authors isolated and identified the following: 2-methylpyrazine, 2,5-dimethylpyrazine, 2-methyl-1,4(7)-dihydropyrazine, 4(5)-methylimidazole, and 2-methyl-4-(beta-cyanoethyl)-1,4-dihydropyrazine. At the same time the beta-aminopropionitrile is transformed to bis(2-cyanoethyl) amine. The reaction mechanisms explaining the formation of the compounds mentioned is discussed. The authors thank A. Pufflorov and O.

Card 1/2



L 31396-66

ACC NR: AP6021114

Jurikov for the elementary analysis, A. Sedlak for determining several physico-chemical constants of the examined substances. Z. Martka and P. Gregor participated in the experimental work. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 22Feb65 / ORIG REF: 002 / OTH REF: 001  
SOV REF: 001

Card 2/2 CC

L 31333-66

SOURCE CODE: CZ/0043/65/000/012/0908/0917

ACC NR: AP6021115

AUTHOR: Jozo, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences; Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava) 28  
3

ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute, SAV, Bratislava (Oddelenie chemie monosacharidov a oligosacharidov Chemického ustavu Slovenskej akademie vied)

TITLE: Aminoanalysis of sucrose (VII). Reaction of sucrose with water solutions of dimethylamine at elevated temperatures

SOURCE: Chemické zvesti, no. 12, 1965, 908-917

TOPIC TAGS: carbohydrate, chemical reaction, reaction temperature, dimethylamine, dicarboxylic acid, organic amide, propane, ethane, ethanol

ABSTRACT: The following substances were isolated by the authors from the reaction mixture of sucrose and dimethylamine at elevated temperatures: trimethylamine, dimethylethylamine; 2-dimethylamino-ethanol, 1,2-bis(dimethylamino) propane, 1,1,2-tris(dimethylamino) ethane; N-dimethylacetamide, N-dimethylglycol amide, N,N'-tetramethylglycinamide, and the bismethylamide of the cis(?)-tetrahydrofuran-2,5-dicarboxylic acid. The mechanism of the reaction is discussed. The authors thank A. Pufflerov and O. Jurikov for the elementary analysis, R. Justhov for remeasuring the infrared spectrum and A. Sedlak for determining several physico-chemical constants of the examined substances. P. Gregor participated in the experimental part. Orig. art. has:

2 tables. JPRS

SUB CODE: 07

SUM DATE: 22Feb65 / ORIG REF: 005 / OTH REF: 023

SOV REF: 002

Card 1/1 28  
3

JEZO, M., mgr inz.

Transistorized converter systems as used in aviation.  
Techn lotn 19 no. 1: 12-16 Ja '64.

NOWAK, Stanislaw; JEZOWA, Liliana

Intestinal flora in the treatment of tuberculosis in children. Gruzlica  
29 no.11:947-948 N '61.

1. Z I Kliniki Chorob Dzieciacych AM w Poznaniu Kierownik: prof. dr  
med. T. Rafinski.

(INTESTINES microbiol)  
(ANTITUBERCULAR AGENTS ther)

TABEAU, Jerzy; WOJCIKIEWICZ, Olga; SANOCKA, Irena; JEZOWA, Maria; JASTRZEBSKI, Jerzy

The clinical significance of certain excitability and conduction disturbances in the light of the statistical analysis of 30,000 electrocardiograms. Pol. arch. med. wewn. 33 no.1:39-46 '63.

1. Z I Kliniki Chorob Wewnętrznych AM w Krakowie Kierownik: prof. dr med. L. Tochowicz.

(ELECTROCARDIOGRAPHY) (STATISTICS) (HEART BLOCK)

JEZOWA, M.

The significance of the positive U-wave. Kardiol. Pol. 8 no.1:  
53-56 '65

1. Z I Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie  
(Kierownik: prof. dr. L. Tochowicz).

TROSKOLANSKI, Adam Tadeusz, prof. inz.; JEZOWIECKA-KABSCH, Krystyna,  
mgr inz.

Calculation of fluid ejectors based on power equations. Gaz  
woda techn sanit 37 no.8:251-254 Ag '63.

1. Department of Mechanics of Liquids and Gases, Technical  
University, Wroclaw.

YEZHOVSKA TSHEBYATOVSKA, B. [Jezowska-Trzebiatowska, B.]; VOYTSEKHOVSKI, V.  
[WOJCIECHOWSKI, W.]

Magnetic properties of binuclear complexes with an oxygen bridge  
in the light of the methods of valence schemes and molecular orbits.  
Zhur.strukt.khim. 4 no.6:872-880 N-D '63. (MIRA 17:4)

1. Vrotslavskiy universitet, Pol'sha.



JEZOWSKA-TRZEBIATOWSKA, B.									
COMPLEX CHLORIDES OF QUADRIVALENT RHENIUM									
<p>Complex chlorides of quadrivalent rhenium.                      B. JEZOWSKA-TRZEBIATOWSKA and C. JODKO (Rous.                      CHEM., 1959, 19, 187-198). <math>\text{HReO}_4</math> in 30% <math>\text{HCl}</math> and  <math>\text{MI}</math> (24 hr. at <math>20^\circ</math> in a <math>\text{CO}_2</math> atm.) yield <math>\text{M}_2(\text{Re}_2\text{OCl}_8)</math>  <math>(\text{M} = \text{K}, \text{NH}_4, \text{quinoline})</math>, together with <math>\text{M}_2(\text{Re}_2\text{OCl}_8\text{OH})</math>  <math>(\text{M} = \text{K}, \text{NH}_4, \text{Ab}, \text{quinoline})</math> and <math>\text{M}_2\text{ReCl}_6</math>.</p>									
R. T.									
<p>438.554 METALLURGICAL LITERATURE CLASSIFICATION</p>									

JEZOWSKA-TRZEBIATOWSKA, BOGUSLAWA

Poland

CA: 47:12073

with JADWIGA NAWOJSKA and MARIA WRONSKA

Univ., Wroclaw

"Quinquevalent manganese."

Roczniki Chem. 25, 405-16 (1951) (English summary)

JEZOWSKA-TRZEBIATOWSKA, B.

*Compounds*

JEZOWSKA-TRZEBIATOWSKA, Boguslawa: Complex ~~Bonds~~ of 4- and 5-rhenium,  
Wroclaw: ~~Wroclawskie Towarzystwo Naukowe, 1953. 29 pp.~~ Wroclawskie Towarzystwo  
Naukowe, 1953. 29 pp.

JEZOWSKA-TRZEBIATOWSKA, B.

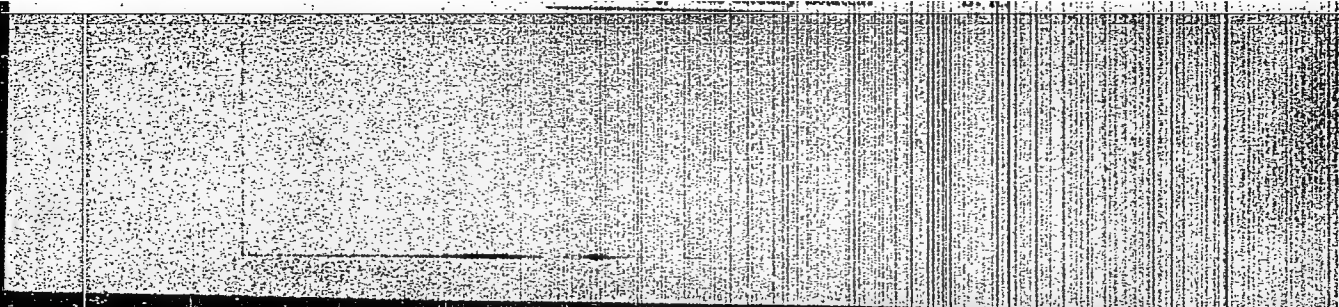
The mechanism of reduction of potassium permanganate by concentrated potassium hydroxide solution. B. Jezowska-Trzebiatowska, J. Nawoliska, and M. Wroblewski. *Bull. acad. polon. sci. Classe III. 1. 311-17 (1953)*. — In the absence of reducing agents in alk. solns. of  $\text{KMnO}_4$ , the  $\text{OH}^-$  ion acts as an electron donor and the mechanism of the reduction is as follows: (I) (a)  $\text{MnO}_4^- + \text{OH}^- \rightarrow \text{MnO}_4^{2-} + \text{OH}^\cdot$  (b)  $\text{MnO}_4^- + \text{OH}^- \rightarrow \text{MnO}_4^{2-} + \text{H}^\cdot + \text{O}_2$ ; (II) (a)  $\text{MnO}_4^{2-} + \text{OH}^- \rightarrow \text{MnO}_4^{3-} + \text{OH}^\cdot$  (b)  $\text{MnO}_4^{2-} + \text{OH}^- \rightarrow \text{MnO}_4^{3-} + \text{H}^\cdot + \text{O}_2$ ; (III) (a)  $\text{MnO}_4^{3-} + \text{OH}^- \rightarrow \text{MnO}_4^{4-} + \text{OH}^\cdot$  (b)  $\text{MnO}_4^{3-} + \text{OH}^- \rightarrow \text{MnO}_4^{4-} + \text{H}^\cdot + \text{O}_2$ . In about 1.3M  $\text{KOH}$ ,  $2\text{MnO}_4^- + 2\text{H}_2\text{O} \rightarrow \text{MnO}_4^{2-} + \text{MnO}_2 + 4\text{OH}^-$ . In dil.  $\text{KOH}$  (< 0.001M),  $3\text{MnO}_4^- + \text{H}_2\text{O} \rightarrow 2\text{MnO}_4^{2-} + \text{MnO}_2 + 2\text{OH}^-$ . The rate-dets. step is II. Evidence for each step is given. Bernard Rubin.

(2) for

The behavior and constitution of actives pentam(V) complexes. R. J. Jorgensen, J. Org. Chem., 26, 1711 (1961). (See also 240-62, 1961, in English). The reaction of  $K_2ReO_4$  in concentrated HCl with HI leads to the formation of 2 new complexes,  $K_2[ReO_4Cl_2]$  and  $K_2[ReO_4Cl_3]$ , which remain in mutual equilibrium. Absorption spectra of pure  $K_2[ReO_4Cl_2]$  show it to be a primary reduction product. It changes into the binuclear complex  $[Re_2O_7]^{4-}$ , and below  $18^\circ$ , the equilibrium favors this complex. Molar conductivities of both salts confirm these as 3 and 6 valent salts. Magnetic measurements by the Gouy method indicate that the hydroxychlorochromate(IV) is a normal paramagnetic ion ( $\chi_M^{25^\circ} = 8.120 \times 10^{-5}$ ,  $\chi_M^{25^\circ} = 5.040 \times 10^{-5}$  in 4M HCl,  $\chi_M^{25^\circ} = 5.040 \times 10^{-5}$  in 4M HCl).

**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619620011-5**



**APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619620011-5"**

~~TRZEBIATOWSKA, JEZOWSKA~~  
JEZOWSKA-TRZEBIATOWSKA, B. POL.

Kinetics of permanganate reduction by hydroxy ions.  
B. Jezowska-Trzebiatowska, J. Nawojka, and M. Wron-  
ska. *Bull. Acad. Polon. Sci., Classe III, 2, 447-46 (1954).*  
The successive reductions  $Mn(VII) \rightarrow Mn(VI) \rightarrow Mn(V)$   
 $\rightarrow Mn(IV)$  were studied kinetically to establish the mech-  
anism of each step. Excess  $OH^-$  concn. was used to give  
solns. of const. ionic strength and to enable the reaction to  
be handled as pseudounimol. Reaction progress was  
detd. iodometrically. The order of each of the consecutive  
reactions was detd. by the half-life method. The mecha-  
nism of the  $Mn(VII) \rightarrow Mn(VI)$  step is given by:  $MnO_4^-$   
 $+ OH^- \rightleftharpoons MnO_4^{2-} + O^-$ ;  $MnO_4^- + OH^- \rightleftharpoons MnO_4^{2-} + OH^-$   
 $MnO_4^{2-} + H_2O \rightleftharpoons O^- + OH^-$ ;  $O^- + OH^- \rightleftharpoons HO_2^-$ ;  $MnO_4^{2-} +$   
 $HO_2^- + OH^- \rightleftharpoons MnO_4^{2-} + O_2 + H_2O$ ;  $MnO_4^{2-} + O_2$   
 $\rightarrow MnO_4^- + O_2$ . The reduction  $Mn(VI) \rightarrow Mn(V)$   
follows the same general pattern. The mechanism of the  
reduction  $Mn(V) \rightarrow Mn(IV)$  is given by:  $MnO_4^{2-} +$   
 $OH^- \rightleftharpoons MnO_4^{2-} + OH^-$ ;  $MnO_4^{2-} + 3H_2O \rightleftharpoons MnO_2 +$   
 $4OH^-$ . Cf. C.A. 48, 970hc. Howard Neuman.

TRZEBIAŁOWSKA - J  
JEZOWSKA-TRZEBIAŁOWSKA, B.

✓ Peroxy complexes as intermediate states in the electron-transfer reaction. D. Jezowska-Trzebiatowska and H. Przywarska. *Bull. Acad. Polon. Sci., Classe III*, 3, 429-432 (1955) (in English); cf. *C.A.* 48, 13518b; 47, 9843f. The oxidizing action of  $H_2O_2$  on  $K_2[Re_2O_7]$  was studied by optical-d. measurements on the blood-red solns. formed. Plots of optical d. vs. the mol. ratio of  $K_2Re_2O_7$  to  $H_2O_2$  showed peaks at a ratio of 1/3 at 470, 500, 530, and 570 m $\mu$ . Solns. contg. const. amts. of  $H_2O_2$  and varying amts. of  $K_2Re_2O_7$  showed max. optical d. at a ratio of 1/3; thus only a single complex (I) exists in solu. Increase in the ratio caused a gradual decrease in optical d., suggesting that I reacts with excess  $K_2Re_2O_7$  and undergoes decompn. At const.  $H_2O_2$  and increasing  $K_2Re_2O_7$  concns. the optical d. became const. at a ratio of 1/3; further addn. of  $H_2O_2$  caused no further change and corresponded to complete binding of  $[Re_2O_7]^{2-}$  (II). The stability const. of I is  $1.03 \times 10^4$ . Salts corresponding to the following compns. were pptd. from solns. of max. extinction: (quinoline-II) $_2$   $[Cl_2Re_2O_7ReCl_2]$  (III), and  $C_8H_8Cl_2Re_2O_7ReCl_2$  (IV). The quadrivalent state of Re was established by oxidation of II and III with excess Fe alum, followed by  $MnO_4^-$  titration. In both cases approx. 2 equivs. of  $MnO_4^-$  were required/g.

atom of Re. I gave Ia reversibly, indicating that 2 bridging O atoms act as oxidizing agents. This is supported by the fact that the soln. of  $K_2Re_2O_7$  with  $H_2O_2$  (in 1/3 mol. ratio) required approx. 6 equivs. of  $MnO_4^-$ /g.-atom of Re at max. extinction. II and III dissolved in aq. solns. giving the characteristic red solns., which turned yellow, reversibly, on raising the pH above 2.2. This may be related to the equil.:  $[Re_2O_7Cl_2]^{2-}$  (yellow)  $\rightleftharpoons$   $4H^+$   $\rightleftharpoons$   $H_4[Re_2O_7Cl_2]$  (red). The solid salts and their aq. solns. undergo slow decompn.:  $[Re_2O_7Cl_2]^{2-} \rightarrow 2Re^{IV} + O_2$ . Slowly reversible autooxidation-reduction process takes place in which the O acts as the oxidizing agent, and the Re atoms act as the reducing agent.  $K_2[Re_2O_7]$  is diamagnetic, owing to spin-coupling between paramagnetic Re atoms. II is paramagnetic (moment  $\approx 3.5$  Bohr magnetons), indicating less spin-coupling due to increased distance between the Re atoms through the peroxide linkage. It is concluded that in soln. a complex is formed:  $H_4[Re_2O_7Cl_2] + H_2O_2 \rightarrow H_4[Re_2O_7Cl_2 \cdot 2H_2O_2] + H_2O$ . Two mol. of  $H_2O_2$  can be joined by H linkage with O atoms of the peroxide bridge. In the solid state, however, this exists only as peroxide bridge, which slowly absorbs electrons and thus causes an increase in the Re oxidation state. The role of the bridging atoms presumably is the same in the complexes in soln.

Ref. G. R. H.



WZEBISTOWSKA - JERZOWSKA, Bogdan

ch / Polarographic reduction of manganese... (English summary). — Two kinds of polarographic curves were obtained by reduction of  $\text{NaMnO}_4$  at the dropping Hg cathode in concd. solns. of NaOH. With greater than 18 mole/l. NaOH,  $\text{Mn}^{4+}$  was reduced to  $\text{Mn}^{2+}$  at  $-0.78$  v. (EAS). In 8 to 18 moles/l. NaOH the reduction proceeded from  $\text{Mn}^{4+}$  to  $\text{Mn}^{3+}$  to  $\text{Mn}^{2+}$ . Addn. of a small amt. of EtOH made the 3 waves disappear, giving rise to a new wave in the region of more neg. potentials corresponding to reduction of  $\text{Mn}^{4+}$  to  $\text{Mn}^{2+}$  and having a height equal to that of the 3 previous waves combined. The "water-reduction" wave did not appear in concd. solns. of NaOH and the low O-reduction wave was disregarded. P. 11

1

JEZOWSKA-TRZEBIATOWSKA, B.

Distr: 4E3b/4E2c/4E3c 2 cys/4E3d

The peroxy compounds of rhenium. B. Jezowska-Trzebiatowska and H. Przywarska (Univ. Wrocław, Poland). *Congr. intern. chim. pure et appl.*, 16<sup>e</sup>, Paris 1957, *Mem. sect. chim. minerale* 843-51 (Pub. 1958); cf. *C.A.* 52, 147a. — Oxidn. of  $\mu$ -oxochlororhenate with iodate, bromate, or other agents yields the red peroxy anion  $(\text{Re}_2\text{O}_7\text{Cl}_2)^{4-}$ , stability const.  $1.02 \times 10^{14}$ . Salts of the anion with Cs, Rb, and quinoline were prepd. and the paramagnetism of the quinoline salt was measured. The mole ratios of oxidant to  $\mu$ -oxochlororhenate are 2:1 for all except  $\text{H}_2\text{O}_2$  which has a 3:1 ratio because of a coordination complex with  $\text{H}_2\text{O}_2$  as an intermediate; oxidn. with  $\text{H}_2\text{O}_2$  or air in the presence of a nitrate catalyst is slower than the action of other oxidants. The peroxy anion decomps. readily on standing to the  $\mu$ -oxochlororhenate, and is probably best described as a pseudoperoxide.

J. P. Phillips

POLAND / Inorganic Chemistry. Complex Compounds. C-1

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 703.

Author : Jezowska-Trzebiatowska, B.; Pajdowski, L.

Inst : Not given.

Title : The Polynuclear Complexes of Trivalent Vanadium.  
I. The Complexes of Trivalent Vanadium with Chloroacetic Acid.

Orig Pub: Rocsn. chem., 1957, 31, No 3, 769-781.

Abstract: The  $WCl_3$ --  $ClCH_2COOH$  system was investigated by an optical method of continuous changes and the method of pH measurement. The presence of three and two nuclear complex ions were shown to exist in solution. In the solid state the complex compounds having the general formula  $[V_3(ClCH_2COO)_6(OH)_2]X$  were separated, where  $X = ClCH_2COOH, ClO_4$  and compounds  $[V_2(ClCH_2COO)_4(OH)_2]$ , similar to the known complexes of Cr, Fe and Ru. -- Author's resume.

Card 1/1

TRZEBIAKOWSKA - TRZEBIAKOWSKA

Country : Poland C  
 Category : Inorganic Chemistry - Complex Compounds  
 Abs. Jour : RZhKhim., No 13, 1959 45333  
 Author : Jezowska-Trzebiatowska, B., Bartecki, A.,\*  
 Institut. : Not given  
 Title : Investigation of the Chemistry of Hexavalent and  
 Quadrivalent Uranium in Organic Solvents  
 Orig. Pub. : Nukleonika, 3, Spec No, 39-58 (1958)  
 Abstract : The authors have investigated the behavior of  
 $UO_2(NO_3)_2 \cdot 6H_2O$  (I) in organic solvents ( $C_2H_5OH$ ,  
 acetone, methyl ethyl ketone, methyl isobutyl  
 ketone, acetylacetone, 1,4-dioxane, acetonitrile,  
 formamide, butylisoamylphosphates) by the methods  
 of spectrophotometry, solubility, and electric  
 conductivity. It is shown that I is a very weak  
 electrolyte in organic solvents. The absorption  
 spectra (360-500 m $\mu$ ) of I in the above-indicated  
 organic solvents are described; all of the spectra

Card: 1/4 \* Przywarska, H., Chmielowska, M., Mikulski, T.  
 Bukietynska, K., and Makolowicz, W.

Country : Poland  
 Category : Inorganic Chemistry - Complex Compounds  
 Abs. Jour : RZhKhim., No 13, 1959 45333  
 Author :  
 Institut. :  
 Title :  
 Orig. Pub. :  
 Abstract : show a marked fine structure. The authors also  
 discuss the formation of complexes involving I  
 and molecules of organic solvents. The kinetics  
 of the photochemical formation of  $UO_4 \cdot 2H_2O$  (II)  
 in ether solutions of I saturated with water when  
 a stream of  $O_2$  is passed through the solution at  
 25° and the latter is irradiated with light from  
 a mercury lamp. The following mechanism is  
 proposed for the formation of II which under the  
 conditions indicated follows zero-order kinetics:

Card: 2/4

POLAND / Inorganic Chemistry. Complex Compounds.

C

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 7757.

Author : Jezowska-Trzebiatowska B., Wajda, S.

Inst : POLISH Academy of Sciences.

Title : The Diamagnetic Oxo-oxalatorhenates.

Orig Pub: Bull. Acad. polon. sci. Ser. sci. chim., geol.  
et geogr., 1958, 6, No 4, 217-221, XVII.

Abstract: Mixture of  $\text{ReO}_2$ ,  $\text{H}_2\text{C}_2\text{O}_4$  and  $\text{K}_2\text{C}_2\text{H}_4$ , in the molecular proportions of 1 : 3 : 1, was heated for 70 hours; after addition of alcohol (to 55%) there separated a brown powder of  $\text{K}_4\text{Re}_2(\text{OH})_6(\text{C}_2\text{H}_4)_2\text{O}_7$  (I); after 24 hours following increase of alcohol concentration in the filtrate to 80% there separated olive-green crystals of  $\text{K}_4\text{Re}_2(\text{OH})_2(\text{C}_2\text{O}_4)_4\text{O}_7$  (II). From solution of II in

Card 1/2

Jezowska-Trzebiatowska, B.

POLAND/Inorganic Chemistry - Complex Compounds

C

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30757

Author : Jezowska-Trzebiatowska, B., Przywarska, H.

Inst : Polish Academy of Sciences

Title : Oxygen-Carrying Capacity of Binuclear Rhenium (IV) Complexes

Orig Pub: Bull Acad Polon Sci, Ser Sci Chim, Geol, et Geograph, 1958, No 6, 349-354

Abstract: The authors have made continuous spectrophotometric measurements on the reaction of  $\text{Re}_2\text{OCl}_{10}^{7-}$  (I) with a number of oxidizers. It has been found that 1 mol of I adds 1 gm-atom of O. The peroxy complex  $\text{Re}_2\text{O}_2\text{Cl}_{10}^{7-}$  (II) which is formed is unstable and is completely decomposed after 12 hrs, in the course of the

Card 1/3

58

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.

The absorption spectra of uranyl nitrate in some organic solvents.  
In English. Bul Ac Pol chim 6 no.9:567-574 '58. (EPAI 9:6)

1. Department of Inorganic Chemistry, Wroclaw University.  
Institute of Physical Chemistry, Polish Academy of Sciences.  
Presented by W. Trzebiatowski.  
(Uranyl nitrate) (Absorption spectra)  
(Solvents) (Organic compounds)

B. JAZOWSKA-TRZEBIATOWSKA

1958  
Kinetics of the reaction between oxochlororhenate(IV) and molecular oxygen catalyzed by nitrates. B. Jazowska-Trzebiatowska and H. Przywarska (Univ. Wrocław, Poland). *Bull. Acad. Polon. Sci., Ser. Sci., Chim., geol. et geogr.* 6, 611-16 (1958) (in English); cf. *C.A.* 52, 19083d. The reversible oxidation with gaseous O from air, of K oxochlororhenate (I) to the peroxo compd. was studied at 2.5, 12, and 13°. I ( $10^{-4}$  mole) was dissolved in 50 ml. 2N HCl, about  $10^{-3}$  mole KNO<sub>3</sub> was added as catalyst, the soln. filled with H<sub>2</sub>O to 100 ml., and optical ds. at 408 mμ were examd. at time intervals. The soln. was stirred vigorously in contact with air. Data fitted the equation  $dx/dt = k[KNO_3] - (a - x)^{1.5}$ . Activation energy was 10.62 cal. A 9-stage mechanism is suggested, and the derivation of the kinetic equation is outlined. J. Stecki



~~Bogusława Jezowska-Trzebiatowska~~, B.

Distr: AE2c(1)

✓ Polynuclear vanadium(III) complexes. II. Structure of vanadium(III) complexes with monochloroacetic acid, Bogusława Jezowska-Trzebiatowska and Lech Pańdowski (Univ. Wrocław, Poland). *Roczniki Chem.* 32, 1061-72 (1958) (English summary); cf. *C.A.* 52, 3588c. Only one OH group can be replaced in soln. by an  $\text{NH}_2$  mol. in the complex  $\text{V}_3(\text{ClCH}_2\text{COO})(\text{OH})_4 \cdot 4\text{H}_2\text{O}$  (I). The mol.-wt. detns. by dialysis confirmed the trinuclear structure of I. Potentiometric titration showed that  $\text{NH}_2$ , but not  $\text{H}_2\text{O}$  takes the place of the OH group. The magnetic moment of I is 2.80 B.M., whereas for the complex with  $\text{NH}_3$  it is 2.77 B.M./atom at 293°K.; this indicates identical symmetry of V in both complexes. The configurations corresponding to Werner's and Kuntz's formulas are extreme cases; whereas in soln. a kind of tautomerism occurs which depends on pH and concn. New configurational formulas are suggested. The lowering of magnetic moment of trinuclear Fe complexes (II) in soln. is attributed to the presence of OH bridges in tautomeric form. The explanation of Werbel, *et al.* (*C.A.* 38, 6941) is criticized. Crystn. of II would require considerable deformation of structure; therefore, in the solid state only Werner's tautomeric form can exist.

A. Kreglewski

5  
2/11/58

POLAND/Optics - Spectroscopy.

K

Abs Jour : Ref Zhur Fizika, No 1, 1960, 2154

Author : Jezowska-Trzebralowska, B., Bartecki, A.

Inst : The University, Wroclaw; Institute of Physical Chemistry, Polish Academy of Sciences.

Title : The Absorption Spectra of Uranyl Nitrate in Some Organic Solvents

Orig Pub : Bull. Acad. polon. sci. Ser. sci. chim., geol. et geogr., 1958, 6, No 9, 567-574, IL-L

Abstract : Absorption spectra were measured of solutions of hexahydrate uranyl nitrate in water (I), dioxane (II), acetone (III) methyl ethyl ketone (IV), methyl isobutyl ketone (V), tributyl phosphate (VI), acetone nitril (VII), formamide (VIII) and acetyl acetone (IX) in the range from 360 to 500 millimicrons, The

Card 1/3

POLAND/Optics - Spectroscopy.

K

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620011-5"

Abs Jour : Ref Zhur Fizika, No 1, 1960, 2154

spectrum of solutions I -- VIII consists of a broad-band with a clearly pronounced vibrational structure and, apparently, corresponds to the forbidden transition of the electrons of the added end on the 5 f orbit of uranium. The position of the maxima of the vibrational bands and the corresponding coefficients of absorption  $\epsilon$  (mole<sup>-1</sup> cm<sup>-1</sup> liter) are tabulated. In III -- VIII the vibrational structure is less sharply pronounced than in I -- II, and a bathochromic shift occurs in the vibrational bands by approximately 10 millimicrons. The similarity between spectra I -- VII shows that in the solution, the uranyl nitrate exists in the form  $UO_2(H_2O)_4 \cdot (NC_3)_2$  or

$[UO_2(H_2O)_4(NO_3)_2]$ , where the nitrate groups can

be partially replaced by molecules of the solvent.

Card 2/3

JEZOWSKA-TRZEBIATOWSKA, B.

Reduction mechanism and electron structure of oxycyano-  
rhenate. B. Jezowska-Trzebiatowska and J. Danowska  
(Univ. Wrocław, Poland). *Z. physik. Chem. (Leipzig)* 217,  
29-39 (1959).—By aid of the polarographic redn. of  $K_2$   
( $ReO_4(CN)_4$ ), the electron no. involved in the cathode pro-  
cess was calcd. from the Ilkovic equation and detd. by  
polarographic microcoulometry. With an excess of  $CN^-$   
ions the redn. leads directly to  $Re^{II}$  complexes. With  
redn. in a  $KCl$  soln.  $Re^{III}$  ions were obtained. The results  
of the electrochem. method were confirmed chemically by  
redn. with  $Na$  amalgam in which  $Re^{II}$  complexes were ob-  
tained. Friedrich Bpstein.

292 (p/B)

AE20  
1-571 ID

292

COUNTRY : Poland  
 CATEGORY : B-9  
 ABS. JOUR. : RZKhim., No. 21 1959, No. 74250  
 AUTHOR : Jezowska-Trzebiatowska, B. and Przywarska, H.  
 INST. : Polish Academy of Sciences  
 TITLE : Kinetics of the Reaction Between Oxochlororhenate (IV) and Molecular Oxygen Catalyzed by Nitrates  
 ORIG. PUB. : Bull Acad Polon Sci, Ser Sci Chim, Geol et Geograph, 6, No 10, 611-615, LIII-LIV (1959)  
 ABSTRACT : The kinetics of the addition of molecular  $O_2$  to  $[Re_2OCl_{10}]^{4-}$  (I) with the formation of a red peroxide complex  $[Re_2O_2Cl_{10}]^{4-}$  (II) in the presence of  $NO_3^-$  have been studied in acid medium at 2.5-13° by the colorimetric method. The reaction is reversible; when pure  $N_2$  is passed through the solution obtained, II is converted back to I. The reaction rate is first order in the concentration of I and directly proportional to the concentration of  $NO_3^-$ . The activation

CARD: 1/2

40

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.; CHMIELOWSKA, M.

The potassium permanganate-stannous chloride system in acetone. Bul  
Ac Pol chim 7 no.7:485-490 '59. (EEAI 10:4)

1. Department of Inorganic Chemistry, Wroclaw Technical University.  
Institute of Physical Chemistry, Polish Academy of Sciences.  
Presented by W.Trzebiatowski.

(Acetone)	(Potassium permanganate)	(Tin chlorides)
	(Systems (Chemistry))	

JEZOWSKA-TRZEBIATOWSKA, B.; KALECINSKI, J.

X-ray induced reduction of potassium permanganate and manganate in alkaline solution. Bul chim PAN 8 no.2:27-31 '60.

(EEAI 10:9/10)

1. Department of Inorganic Chemistry, University, Wroclaw. Presented by W. Trzebiatowski.

(X-rays) (Potassium permanganate) (Manganates)

PAJDOWSKI, Lech; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Polynuclear vanadium(III) complexes. IV. Determination of the  
stability of polynuclear complexes. Roczniki chemii 34 no.3/4:775-  
785 '60. (BEAI 10:3)

1. Katedra Chemii Nieorganicznej Uniwersytetu, Wrocław i Instytut  
Chemii Fizycznej Polskiej Akademii Nauk, Wrocław  
(Vanadium) (Potentiometer)

JEZOWSKA-TRZEBIATOWSKA, Boguslawa; PAJDOWSKI, Lech

Polynuclear vanadium(III) complexes. V. Determination of the instability and equilibrium constants in the nonbuffered system  $VCl_3-ClCH_2COOH$ . Rocz chemii 34 no.3/4:787-797 '60. (REAI 10:3)

1. Katedra Chemii Nieorganicznej Uniwersytetu, Wrocław i Instytut Chemii Fizycznej Polskiej Akademii Nauk, Wrocław  
(Vanadium) (Chemical equilibrium)



BARTECKI, Adam; CHMIELOWSKA, Maria; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Inorganic compounds in acetone. Pt. 1. General characteristics of non-aqueous solvents, properties and purification of acetone.  
Pt. 2. Durability of acetone against the effect of supermangan.  
Przem chem 39 no.4:210-218 Ap '60.

1. Katedra Chemii Nieorganicznej, Uniwersytet i Politechnika, Wroclaw  
i Instytut Chemii Fizycznej, Polska Akademia Nauk, Wroclaw,

BARTECKI, Adam; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Vibrational structure of electronic spectra of uranyl nitrate. Pt. 1.  
Force constants and U-O distances in organic solvents. Nukleonika 6  
no. 4:267-275 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieroganicznej II i Instytut  
Chemii Fizycznej PAN.

JEZOWSKA-TRZEBIATOWSKA, Boguslawa; BARTECKI, Adam

The vibrational structure of electronic spectra of uranyl nitrate.  
Pt;2.: The dissociation energy of uranyl ion. Nukleonika 6 no.4:  
277-285 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieroganicznej II, Instytut  
Chemii Fizycznej Polskiej Akademii Nauk.

BARTECKI, Adam; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Vibrational structure of electronic spectra of uranyl nitrate. Pt. 3.  
Transition intensities in the spectra of uranyl nitrate. Nukleonika 6  
no. 4:287-294 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieorganicznej II. i Instytut  
Chemii Fizycznej PAN.

S/081/62/000/014/007/039  
B166/B144

AUTHORS: Jeżowska-Trzebiatowska, B., Wajda, S., Wojciechowski, W.

TITLE: Para- and diamagnetic rhenium (IV) complexes. Part III.  
Complex compounds of rhenium (IV) with organic hydroxy-acids.  
Part IV. Rhenium (IV) complexes with phenol carboxylic acids

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1962, 86, abstract 14V57 (Bull. Acad. polon. sci. Ser. sci. chim., v. 9, no. 2, 1961, 57-64; 65-69)

TEXT: III. Complexes  $K_2[Re_2O(OH)_6L_2]$  (I) and  $K_4[Re_2O(OH)_6L'_2]$  (II) were synthesized; where HL and  $H_2L'$  are citric and tartaric acid respectively. I and II are compounds of RE (4+) got by heating  $K_2ReCl_6$  in solution with an excess of the corresponding acid. From studying the electrical conductivity of solutions of I and II it is shown that these are dinuclear complexes, diamagnetic both in the solid state and in solution. The authors consider that the diamagnetism is brought about by interaction  
Card 1/2

S/081/62/000/019/001/053  
B144/B180

AUTHORS: Jeżowska-Trzebiatowska, V., Bartecki, A.

TITLE: The solvent effect in absorption spectra of uranyl nitrate

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1962, 13, abstract  
19B60 (Bull. Acad. polon. sci. Ser. sci chim., v. 9, no. 2,  
1961, 87 - 90 [Eng.; summary in Rus.] )

TEXT: The effect of organic solvents on the absorption spectra ( $\sim 360 - 500$  m $\mu$ ) of uranyl nitrate (I) solutions is discussed on the basis of experimental data obtained previously. In the spectra of I solutions the mean distance between the components of the vibrational structure of the electron transition bands is  $\sim 710$  cm $^{-1}$ ; it is related to the frequency  $\nu_s$  of the symmetrical stretching vibration of the  $UO_2^{2+}$  ion. The solvents cause variations in the energy of the vibrational transitions, the intensities of the absorption bands, and in the vibrational structure of the electron transition bands. No direct relation was found between variations in  $\nu_s$  and the dielectric constant or dipole moment of the solvents. It is suggested that the vibrational structure of the electron transition bands

Card 1/2

JEZOWSKA-TRZEBIATOWSKA, B.; WAJDA, S.; WCJCIECHOWSKI, W.

Para- and diamagnetic rhenium (IV) complexes. Pt. 8. Bul chim  
PAN 9 no.12:767-772 '61.

1. Department of Inorganic Chemistry, University, Wroclaw, and  
Institute of Physical Chemistry, Polish Academy of Sciences,  
Wroclaw. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; KALECINSKI, J.

The radiation chemistry of oxyanions of transition elements.  
Pt. 1. Bul chim PAN 9 no.12:791-797 '61.

1. Department of Inorganic Chemistry, University, Wroclaw, and  
Institute of Physical Chemistry, Polish Academy of Sciences,  
Wroclaw. Presented by W. Trzebiatowski.



JEZOWSKA-TRZEBIATOWSKA, B.; PRZYWARSKA, H.

The acid base and structural equilibria in binuclear rhenium (IV) complexes. Bul chim PAN 9 no.11:679-684 '61.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish Academy of Sciences. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; WOJCIECHOWSKI, W.

Para- and diamagnetic rhenium (IV) complexes. Pt. 5. The complex of Re (IV) with ethylenediaminetetracetic acid. Ptl. 6. The racah coefficients and energy levels of some complexes of 5d<sup>3</sup> elements. Pt. 7. Energy and length of the oxygen-bridge bond in binuclear Re (IV) complexes. Bul chim PAN 9 no.11:785-704 '61.

1. Department of Inorganic Chemistry, University, Wrocław. Presented by W. Trzebiatowski.

S/081/63/000/001/023/061  
E144/D106

AUTHORS: Jeżowska-Trzebiatowska, B., Kaleciński, J.

TITLE: Radiation chemistry of oxy-anions of transition elements.  
Part 1. Reduction of potassium permanganate in aqueous  
solutions by  $\text{Co}^{60}$   $\gamma$ -rays

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 88, abstract  
18613 (Bull. Acad. polon. sci. Sér. sci. chem., v. 9,  
no. 12, 1961, 791-797 [Eng., summary in Russ.])

TEXT: The reduction of  $\text{KMnO}_4$  was studied in neutral solutions under the  
effect of  $\text{Co}^{60}$   $\gamma$ -rays. The reduction proceeds in two successive stages:  
 $\text{Mn}^{7+} \longrightarrow \text{Mn}^{4+}$  (1) and  $\text{Mn}^{4+} \longrightarrow \text{Mn}^{2+}$ . G of stage (1) with  
 $[\text{MnO}_4^-] = 0.46 \cdot 10^{-4}$  M equals 2.86 and increases proportionally to  
 $[\text{MnO}_4^-]^{1/2}$  up to 5.04 with  $[\text{MnO}_4^-] = 4.35 \cdot 10^{-4}$  M. After complete  
disappearance of  $\text{Mn}^{7+}$ , reduction of  $\text{Mn}^{4+}$  is initiated resulting in a yield  
Card 1/2

Reduction chemistry of ...

S/061/63/000/001/023/061  
B144/B186

of 1.75. The high reduction yields are explained by chain reactions.  
[Abel's note: Complete translation.]

✓

S/058/63/000/002/021/070  
A062/A101

AUTHORS: Jeżowska-Trzebiatowska, B., Kędzia, B.

TITLE: Molecular spectroscopy of anhydrous uranyl salts. I. Absorption spectra of anhydrous uranyl nitrate in some organic solvents

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 28, abstract 2D162 ("Bull. Acad. polon. sci. Ser. sci. chim.", 1962, v. 10, no. 6, 275 - 281, English; summary in Russian)

TEXT: Absorption spectra of anhydrous uranyl nitrate in diethyl ether, acetone, 2-heptanon, formamide, dioxane and acetylacetone, are obtained. In the range 360 - 500 mμ, 10 absorption bands were found. Like in the spectra of hydrates of uranyl nitrate, the electronic oscillating nature of the spectra is here conserved, and more clearly so in the visible portion of the spectrum. In the ultraviolet region there is observed, depending on the solvent, a certain blurring of the absorption bands. It may be concluded that in the visible portion of the spectrum water does not in principle affect the spectral form of uranyl nitrate in organic solvents.

[Abstracter's note: Complete translation]  
Card 1/1

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.; KEDZIA, B.

Molecular spectroscopy of anhydrous uranyl salts. III. Bul chim  
PAN 10 no.8:433-438 '62.

I. Department II of Inorganic Chemistry, Technical University,  
Wroclaw. Presented by W. Trzebiatowski.

*JEZOWSKA-TRZEBIATOWSKA, B.*  
JEZHOVSKA-TRZHEBYATOVSKA, Boguslava [Jezowska-Trzebiatowska, Boguslawa];  
KENDZYA, Boguslav [Kedzia, Boguslaw]

Anhydrous uranyl nitrate. Nukleonika 8 no.2:101-115 '63.

1. Kafedra neorganicheskoy khimii II, Vroslavskiy politekhnicheskoy  
institut, Vroslav.

WOJCIECHOWSKI, W.; JEZOWSKA-TRZEBIATOWSKA, B.

The electron spin resonance in binuclear chromium III complexes.  
Biul chim PAN 11 no.2:79-84 '63.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish Academy  
of Sciences, and Department of Inorganic Chemistry, University,  
Wroclaw. Presented by W. Trzebiatowski.



KALECINSKI, J.; JEZOWSKA-TRZEBIATOWSKA, B.

Radiation chemistry of oxyanions of transition elements.  
Pt. 3. Bul chim PAN 11 no.9:531-537 '63.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish  
Academy of Sciences. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.; WOJCIECHOWSKI, W.

Absorption spectra of nitrosylcyanide complexes of transition metals. Bul chim PAN 11 no.10:567-573 '63.

The application of the M.O. method to investigations of nitrosylcyanide complexes. Ibid.:575-578

1. Department of Inorganic Chemistry, University, Wroclaw.  
Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; BUKIETYNska, K.

The change of Lande's interval parameter for U (IV) and  
the new spectrochemical series. Bul chim PAN 12 no. 2:  
123-126 '64

1. Department of Inorganic Chemistry, University, Wroclaw.  
Presented by W. Trzebiatowski.

KEDZIA, B.; JEZOWSKA-TRZEBIATOWSKA, B.

Molecular spectroscopy of anhydrous uranyl salts. Pts. 4-5.  
Bul chim PAN 12 no.4:243-254 '64.

1. Laboratory of Rare Elements, Institute of Inorganic Chemistry  
and Metallurgy of Rare Elements, Technical University, Wroclaw.  
Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.

Infrared spectra of pentacyanonitrosyl complexes of transition metals. Bul chim PAN 12 no.8:503-506 '64.

1. Department of Inorganic Chemistry of Wroclaw University.  
Submitted May 25, 1964.

DZIEGIELNICKI, J.; KALECINSKI, J.; JEZOWSKA-TRZESNIAKOWSKA, P.

The effect of gamma radiation on unrranyl compounds in organic solvents. Pts.1-2. Bul chim PAN 12 no.8:537-549 '64.

1. Department of Inorganic Chemistry of Wroclaw University and Institute for Physico-Chemical Structural Research of the Polish Academy of Sciences, Wroclaw. Submitted May 29, 1964.

JEZOWSKA-TRZEBIATOWSKA, B.; GROBELNY, R.; WOJCIECHOWSKI, W.

Electronic structure of u-oxochlororuthenate and its absorption spectra. Bul chim PAN 12 no.12:827-830 '64.

1. Department of Inorganic Chemistry of Wroclaw University.  
Submitted September 30, 1964.

JEZOWSKA-TRZEBIATOWSKA, B.; BALUKA, M.

The oxychloro technetate. Pt.5. Bul chim PAN 13 no.1:1-4 '65.

1. Department of Rare Elements Chemistry and Institute of Inorganic Chemistry and Metallurgy of Rare Elements of Wroclaw Technical University. Submitted November 18, 1964.



L 34699-65 EPF(c)/EPF(n)-2/EWT(m) Pr-h/Pu-h

ACCESSION NR: AP4045669

P/0046/64/009/07-/0625/0635/7

AUTHOR: Jezowska-Trzebiatowska, B. (Yezhovska-Tshebyatovska, B.);  
Kalecinski, J. (Kaletsinski, I.)

TITLE: Radiation chemistry in alkaline solutions

SOURCE: Nukleonika, v. 9, no. 7-8, 1964, 625-635

TOPIC TAGS: radiolysis, alkaline solution, manganese, chromium, oxyanion

ABSTRACT: The general mechanism of radiolysis of alkaline solutions was investigated for solution concentrations varying from dilute (0.07M/l) to concentrated (13.5M/l). Previous studies have dealt primarily with acidic and neutral solutions; alkaline solutions, which involve more complex experimental difficulties owing to hydrolysis reactions, have not been discussed in principle. In the present investigations, radiolysis of alkaline solutions was carried out with the use of scavengers which do not undergo hydrolysis — oxidation—reduction systems of transition metals. The results of kinetic investigations of the radiolysis of manganese ( $MnO_4^-$ ,  $MnO_4^{2-}$  and  $MnO_4^{\cdot-}$ ) and chromium ( $CrO_4^{2-}$  and  $CrO_2^-$ ) oxyanions and iodide

Card 1/2

L 34699-65

ACCESSION NR: AP4045669

(I<sup>-</sup>) ions were used. The radical and molecular yields were calculated on the basis of the mechanism of manganate radiation reduction in concentrated alkaline solutions and the reduction of alkaline solutions of chromate saturated with hydrogen. The values obtained for these yields were as follows: G<sub>•</sub> = 3.79; G<sub>OH</sub> = 1.00; G<sub>H<sub>2</sub>O<sub>2</sub></sub> = 0.51; G<sub>H<sub>2</sub></sub> = 0.12. Orig. art. has: 4 figures, 29 formulas, and 2 tables.

ASSOCIATION: Polish Academy of Sciences, Institute of Structural Research, Wroclaw

SUBMITTED: 00

ENCL:00

SUB CODE: IC, GC

NO REF SOV: 001

OTHER: 010

Card 2/2

JEZOWSKI-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.

Electronic structure and chemical bonding in cyanonitrosyl  
complexes of transition metals. Chem zvesti 19 no.3:177-  
185 '65.

1. Department of Chemistry, University of Wroclaw, Poland.

VOYTSEKHOVSKI, V. [Wojciechowski, W.]; EZHOVSKA-TSHEBYATOVSKA, B. [Jezovska-Trzebiatowska, B.]; RUDOL'F, N. [Rudolf, N.]

Structure of diamagnetic binuclear molybdenum complexes (V).  
Chem zvesti 19 no.3:209-235 '65.

1. Kafedr neorganicheskoy khimii Vrotslavskogo Universiteta,  
Wroclaw, Poland.

L 9512-66 EWT(1)/T/EWP(t)/EWP(h)/EWA(m)-2 IJP(c) ID/AT/EM  
 ACC NR: AP6002229 44, 55 SOURCE CODE: CZ/0043/55/000/003/0177/0185 744  
 AUTHOR: Jezowska-Trzebiatowska, B.; Ziolkowski, J. 44, 55 8  
 ORG: Department of Inorganic Chemistry, University of Wrocław, Poland 44, 55  
 TITLE: Electronic structure and chemical bonding in cyanonitrosyl complexes of transition metals [Paper presented at the Symposium on the Structure and Properties of Coordinated Compounds held in Bratislava from 2 to 4 September 1964] 744  
 SOURCE: Chemické Zvesti, no. 3, 1965, 177-185 44, 55  
 TOPIC TAGS: 21, 44, 55 electron structure, chemical bonding, intermolecular complex, transition metal oxide, ion, exchange reaction, radioisotope, IR spectroscopy, metal oxidation, chromium, manganese, iron 47  
 ABSTRACT: The electronic structure of central ions in complexes of the  $[M(CN)_5NO]^{n-}$  type and the character of metal ligand bond were interpreted using the radioisotopic exchange method and by the IR-spectroscopic investigations. Investigations of kinetics of the isotopic exchange reaction in the system:  $[M(CN)_5NO]^{n-} - ^{14}CN^-$  where  $M = Cr, Mn, Fe$  and  $Co$ , have shown that the effective valency state of central ions in the complexes investigated is 3+. The stabilization of metal oxidation state in the pentacyanonitrosyl complexes of chromium, manganese and iron as compared with hexacyanide complexes is due to the increase of stability of  $M-NO$  bond, because of the additional  $\pi$ -bond (dative or covalent type). The appearance of  $\pi$ -bond  $M-NO$ , along.

Card 1/2

Card 2/2

JEZOWSKI, K.

WERWICKI, Andrzej

Poland

no title given

no affiliation given

Warsaw, Przegląd Geograficzny, Vol 34, No 3,  
1962, pp 610-12.

Book reviews:

→ JEZOWSKI, Ks. Development and Arrangement of  
Industry in Lower Silesia during the Capitalistic  
Period (Rozwoj i rozmieszczenie przemysłu na  
Dolnym Slasku w okresie kapitalizmu), Wrocław  
1961, Zakład Narodowy im. Ossolińskich, 225  
pages, 7 maps.

JEZSOV, Anatolij Ivanovics [Yeshov, Anatoliy Ivanovich], a kozgazdasagi tudomanyok doktora.

Application of ~~sampling~~ methods in Soviet statistics. Stat szemle 42 no.2:137-151 F'64

1. Szovjetunio Minisztertanacsa mellett mukodo Koaponti Statisztikai Hivatal elnokhelyettese.

BIELECKI, Marian; BRONIECKA, Halina; JEZUITA, Jan; WISNIEWSKI, Lucjan

The activity of certain enzymes in the blood plasma in the early stages of pregnancy and after its interruption. Ginek. Pol. 36 no.4:385-390 Ap '65.

1. Z II Kliniki Położnictwa i Chorob Kobietych AM w Białymstoku  
(Kierownik: doc. dr. med. J. Musiatowicz).



MUSIATOWICZ, Jozef; WROBLEWSKI, Marian; SKRZYDLEWSKI, Zdzislaw;  
BIELECKI, Marian; JEZUITA, Jan

Thromboelastographic evaluation of the treatment of menorrhagia  
using epsilon-aminocaproic acid. Ginek. Pol. 36 no.3:293-298  
Mr '65.

1. Z II Kliniki Poloznictwa i Chorob Kobietych AM w Bialymstoku  
(Kierownik: doc. dr. med. J. Musiatowicz).

HOBIER, Tadeusz; JEZUSEK, Jerzy; LIPOWSKA, Ludgarda

Effect of alternate squeezing of the inner tube on the coefficient of the heat transfer from the inner tube to the gas flowing through the annular space. Chemia stosow B 1 no.2:181-207 '64.

1. Institute of Chemical Engineering and Apparatus Design, Gliwice, of the Polish Academy of Sciences. Submitted June 20, 1963.

Jezykiewicz, J., Weise, F.

"Devices For Removing the Wire Section", p. 67 (PRZEGLAD PAPIERNICZY, Vol. 9, No. 3, Mar. 1953  
Lodz, Poland)

SO: Monthly List of East European Accessions, Vol. 2, # 8, Library of Congress, Aug., 1953  
Uncl.

JEZYNA, Czeslaw; MUSIATOWICZ-JEZYNA, Ryta; KOLOSOWSKI, Zygmunt

Attempted evaluation of the diagnostic significance of the erythrocyte agglutination reaction (heterohemagglutination) in infectious hepatitis. Pol. tyg. lek. 17 no.2:41-45 8 Ja '62.

1. Z Kliniki Chorob Zakaznych AM w Bialymstoku; kierownik: doc. dr med. Piotr Boron.  
(HEPATITIS INFECTIOUS blood) (HEMAGGLUTINATION)